

Work Order ID 126638

126638

Page 1

Wednesday, November 19, 2014 10:43:19 A

Item ID: D4983-041 Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Cargo Hook Assembly
Start Date: 11/19/2014 Start Qty: 1.00 *1* Cust Item ID:
Required Date: 11/19/2014 Req'd Qty: 1.00 *1* Customer:
Reference:

Approvals: Process Plan: MCS Date: 11-11-19 Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4983	REV C								

100 0.00
100
Purchasing Memo 0.00
Purchasing ISSUE PO: 26589
TO: RED BARN
C OF C IS REQUIRED
CZ 11/11/25 ①

110 0.00
110
Packaging Memo 0.00
Packaging
IX 8014-12-17

120 0.00
120
QC Memo 0.00
Quality Control
D 15-01-05 DAS 9 9-89

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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130	Identify as per dwg & Stock Location: <u>S459</u>	0.00							DAS 06 9-89
130									
Packaging	Memo	0.00							
Packaging									
									JAN 06 2015
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

15/1/6 *[Signature]*
[Signature] 15-1-6

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Picklist Print

Wednesday, November 19, 2014 10:43:22 AM

Page 1

Work Order ID: 126638

126638

Parent Item: D4983-041

D4983-041

Parent Item Name: Cargo Hook Assembly

Start Date: 11/19/2014

Required Date: 11/19/2014

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 14-03-022 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D4983-041P

Purchased

No

Each

0.0000

1

D4983-041P

**

Cargo Hook Assembly

1X SP14-12-17.

M131118 X1

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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FAULT CATEGORY

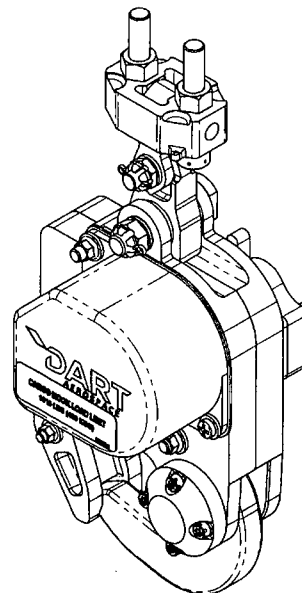
Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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ITEM	QTY -041	P/N	DESCRIPTION
	X	D4983-041	CARGO HOOK ASSY
1	1	D4984-041	HOOK SIDE PLATE ASSY
2	1	D4985-041	HOOK SIDE PLATE ASSY
3	1	D4986-1	CARGO HOOK LOCK
4	2	D4987-1	DUST SHIELD
5	1	D4988-1	KEEPERLESS ADAPTOR
6	1	D4989-1	LATCH SHAFT
7	1	D4990-041	ACTUATOR ASSEMBLY
8	1	D4991-1	LATCH ROLLER PIN
9	1	D4992-1	LATCH ROLLER
10	1	D4993-1	LATCH ROLLER DU BEARING
11	1	D4994-1	LATCH
12	2	D4995-1	ACTUATOR BUSHING
13	1	D4996-041	HOOK ASSEMBLY
14	1	D4997-1	LOAD BEAM BUMPER
15	2	D4998-1	LOCK BUMPER
16	1	D4999-1	CLOCK SPRING COVER
17	1	D5000-1	CLOCK SPRING
18	1	D5001-1	LOCK SPRING
19	2	D5002-1	LINK PIN
20	1	D5003-1	LINK
21	1	D5005-1	SOLENOID COVER GASKET
22	1	D5006-1	SOLENOID COVER
23	1	D5007-1	MANUAL RELEASE COVER
24	1	D5009-1	ACTUATOR SPRING
25	1	D5010-041	HOOK INTERFACE ASSY
26	1	D5011-041	HOOK SOLENOID ASSY
27	2	D5013-3	BUSHING
28	1	D5020-1	WIRE GUIDE/GRIP
29	1	D5044-1	DOWEL PIN
30	2	D5044-3	DOWEL PIN
31	2	D5045-1	SPLIT DU BEARING
32	1	D5056-1	HOOK PIN
33	2	D5057-1	NYLON WASHER
34	2	D5057-3	NYLON WASHER
35	1	D5065-1	HOOK MANUAL RELEASE LEVER
36	1	D5066-1	PLACARD
37	1	D5066-5	PLACARD

NOTES:

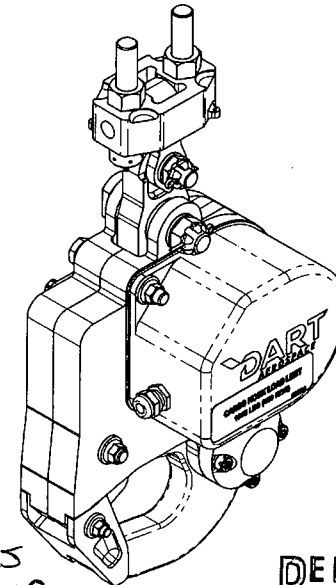
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 5.50 LBS

ITEM	QTY -041	P/N	DESCRIPTION
38	1	AN3C15A	BOLT
39	1	AN310C6	NUT, CASTELLATED
40	2	AN4C15A	BOLT
41	1	AN4C17A	BOLT
42	2	MS16624-4028	RETAINING RING
43	4	MS16624-5012-1	RETAINING RING
44	1	MS171532	SPRING PIN
45	3	MS21043-3	NUT, SELF-LOCKING
46	3	MS21043-4	NUT, SELF-LOCKING
47	1	MS24665-153	COTTER PIN
48	1	MS24694-C7	SCREW, CSK 100*
49	8	MS24674-9	SOCKET HEAD CAP SCREW
50	1	MS27039C0814	SCREW, PAN-HEAD
51	4	MS35338-137	LOCK WASHER
52	5	NAS1149C0363R	WASHER
53	6	NAS1149C0463R	WASHER
54	1	NAS1149C0663R	WASHER
55	1	NAS1149C0863R	WASHER



D4983-041 CARGO HOOK ASSY

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO 126638-MLS
14-11-19



RELEASED
2014-11-06

C	PICTORIAL UPDATE FOR CHANGES TO D5010-041 SUB ASSY. PICTORIAL UPDATE TO ITEM 28. ADDED ITEM 37 & 38. QTY FOR ITEM 44 WAS 4 (-9 DELETED). REDESIGNED D4985-041, D5007-1 AND D5065-1 AND UPDATED RELATED HARDWARE LENGTHS. ALL NASM HARDWARE REPLACED WITH AN/MS HARDWARE.	AJS	14.06.24
B	SHT 1 PARTS LIST: ITEM 42 WAS -151. ADDED ITEM 43. QTY FOR ITEM 44 WAS 8. ITEM 47 PART NUMBER WAS NAS1149C0832R. ITEM 51 PART NUMBER WAS NAS1149C0816R. ITEM 52 PART NUMBER WAS NASM24694-C4. REASON: DRAFTING ERROR.	AJS	14.03.13
A	NEW ISSUE	AJS	14.02.18
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	JLM	D4983	SHEET 1 OF 3
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	CARGO HOOK ASSY	NTS
DATE	14.06.24	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

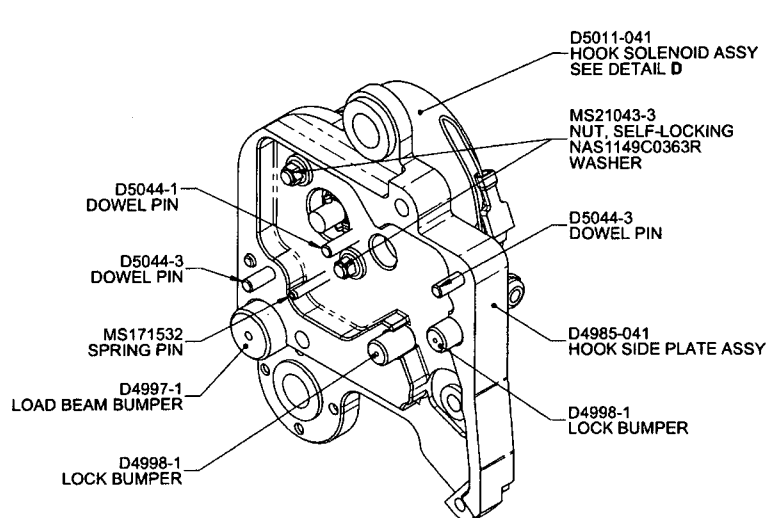
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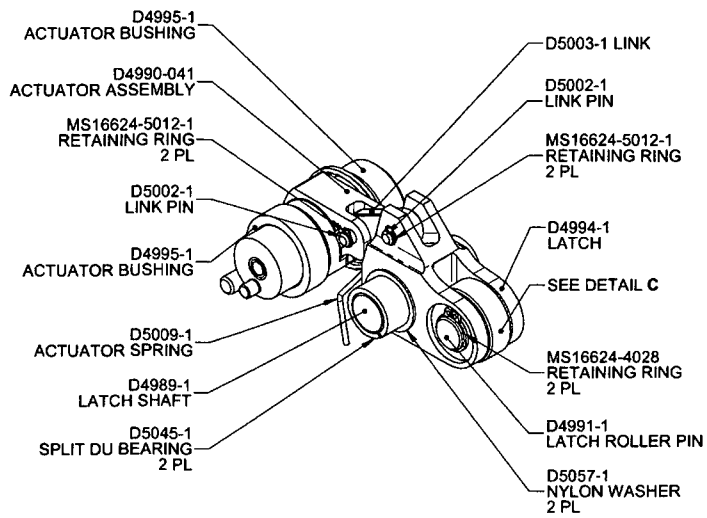
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Transport ☐									
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FAULT CATEGORY

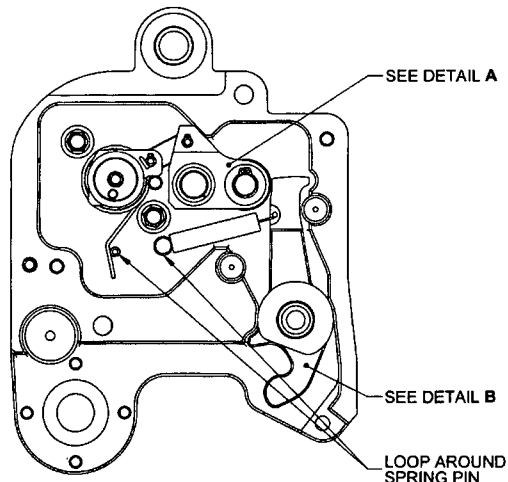
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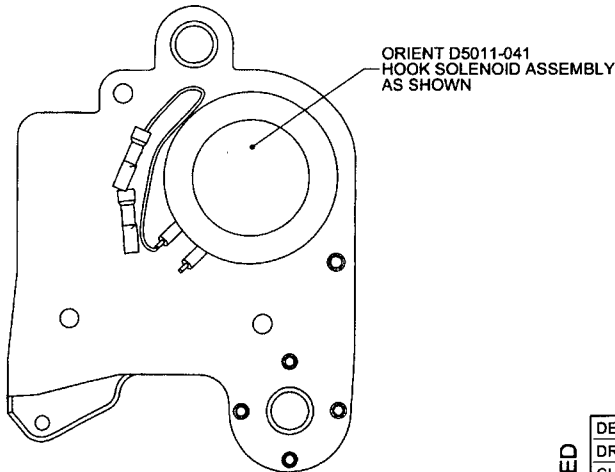
BUILD SEQUENCE 1



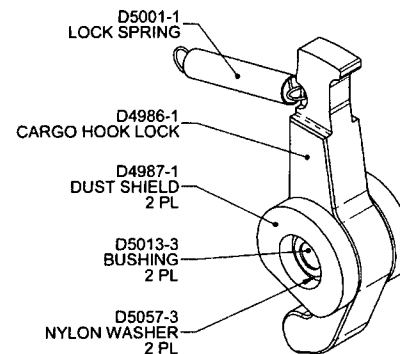
DETAIL A



BUILD SEQUENCE 2



DETAIL D



DETAIL B

RELEASED
2014-11-06

APPROVED

DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	JLM	D4983	SHEET 2 OF 3
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	CARGO HOOK ASSY	NTS
DATE	14.06.24	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

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Unapproved ☐									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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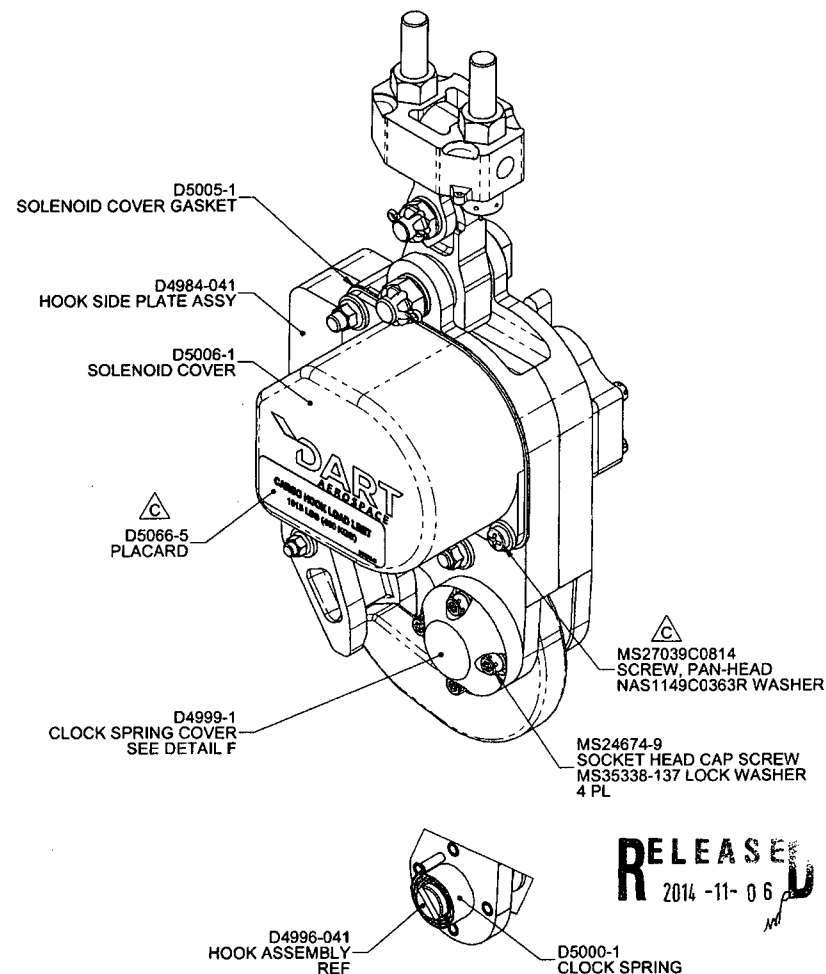
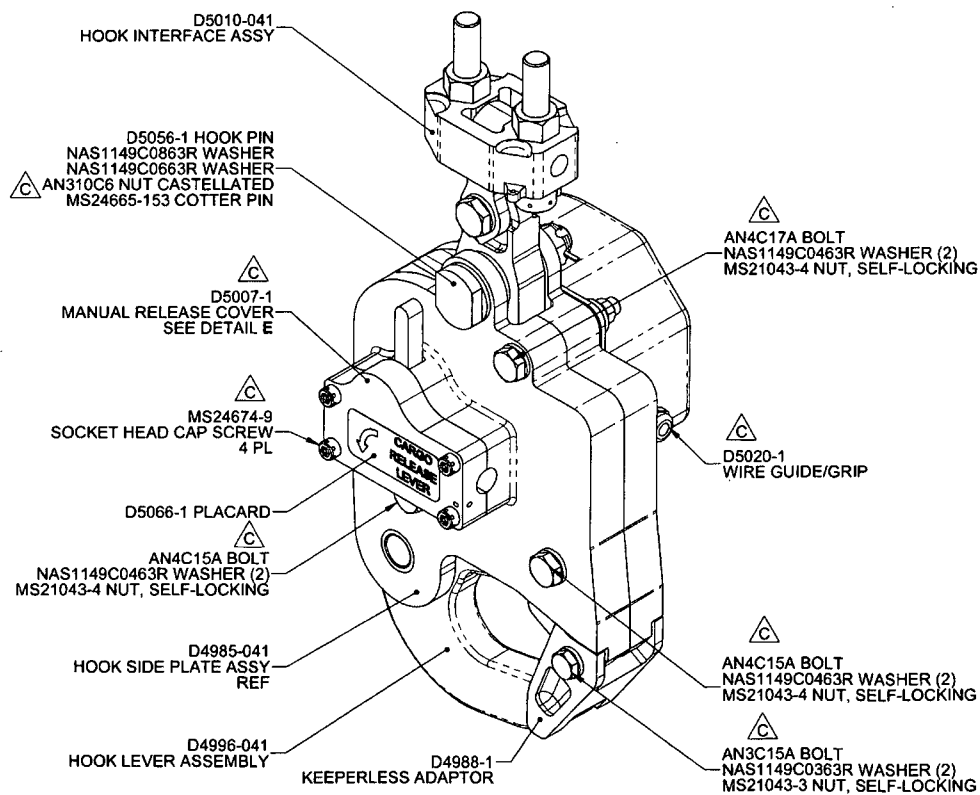
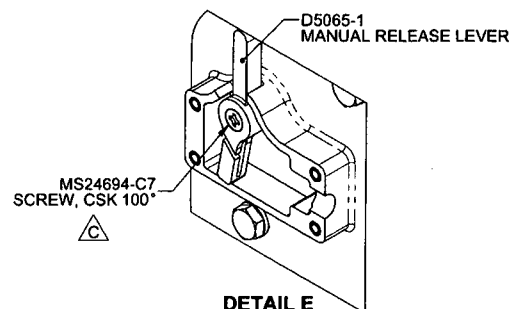
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RELEASE
2014-11-06

APPROVED

DESIGN	AJS
DRAWN	AJS
CHECKED	AP
MFG. APPR.	JLM
APPROVED	MP
DE APPR.	DS
DATE	14.06.24

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D4983** REV. C
SHEET 3 OF 3
TITLE **CARGO HOOK ASSY** SCALE NTS

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
--	--	---

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
--	--	---	--



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO26589**

Purchase Order Date 11/21/2014

PO Print Date 12/23/2014

Page Number 1 of 3

Order From :

VU-RED001

Ship To : DART AEROSPACE LTD

RED BARN MACHINE INC.
190 S DANEBO AVE.
EUGENE, OR 97402
USA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

131118

Contact Name

Vendor Phone 541-344-9953

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extend Pri
2	D4983-041P AS PER DWG D4983 REV. C B126638,B126639,B126640,B126682,B126683,B126684,B126685,B126686,B126687,B126688 DAS 9 9-89	Cargo Hook Assembly	12/19/2014 Yes 12/19/2014	FN	10.00 ✓ Each	\$604.20	\$6,042.
						Line Total:	\$6,042.
3	D5051-1P AS PER DWG D5051 REV. B B126649	Cyclic Switch Housing	12/19/2014 Yes 12/19/2014	FN	10.00 ✓ Each	\$12.60	\$126.
						Line Total:	\$126.
4	D5066-3P AS PER DWG D5066 REV. B B126645	Cargo Hook Placards	12/19/2014 Yes 12/19/2014	FN	10.00 ✓ Each	\$2.50	\$25.

SP 12-12-23

Note:

12/23/2014



Pack Slip: 17848
17848

Packing Slip

Page: 1 of 1

Ship To:

DART AEROSPACE LTD.
1270 ABERDEEN STREET
HAWKESBURY ONTARIO K6A 1K7
CANADA

Phone: 800-556-4166
Fax: 714-755-2995

Sold To: CHANTAL LAVOIE
DART AEROSPACE LTD.
1270 ABERDEEN STREET
HAWKESBURY ONTARIO K6A 1K7
CANADA

Phone: 800-556-4166
Fax: 613-632-4443
dkennedy@dartaero.com

Ship Date: 12/15/2014

Ship Via: FEDEX INTL P1

F.O.B.: EUGENE, OR

Order: 15947

PO: 26589

Salesperson: ERIC BACON

OUR FEDEX ACCOUNT

PO Line	Planned Qty	Shipped Qty	Part Number/Description	Rev
✓ 10.00	10.00		D4983-041P	D
✓ 10.00	10.00		CARGO HOOK ASSEMBLY	B
✓ 10.00	10.00		D5051-1P	B
			CYCLIC SWITCH HOUSING	B
10.00	10.00		D5066-3P	B
			CARGO HOOK PLACARDS	B
10.00	10.00		D5066-5P	B
			CARGO HOOK PLACARDS	B
10.00	10.00		D5066-7P	B
			CARGO HOOK PLACARDS	B
10.00	10.00		D5066-9P	B
			CARGO HOOK PLACARDS	

Dart Aerospace hereby certifies that all materials used in the manufacturing of our tools are new and meets all specifications called out in all applicable blueprints and drawings. All standard machining and manufacturing procedures are strictly followed.


Signed

PackSlip: 8.03:01

190 S. Danebo Avenue
Eugene, OR, USA 97402
dartaerospace.com

T 1 541 344-9953
F 1 541 344-3863

Sales
T 1 800 556-4166
F 1 613 632-4443
E sales@dartaero.com

Mission
Ready.



Commercial Invoice

ATTN: RECEIVING
TO: DART AEROSPACE LTD.
1270 ABERDEEN STREET
HAWKESBURY ONTARIO K6A1K7
CANADA

Date: 12/15/2014
Your Ref.:
Our Ref.: 15947

Qty	Part #	Description	Price Each	Ext. Price
10 ✓	D4983-041P	CARGO HOOK ASSEMBLY	\$ 6,000.00	\$ 60,000.00
10	D5051-1P	CYCLIC SWITCH HOUSING	\$ -	\$ -
10	D5066-3P	CARGO HOOK PLACARDS	\$ -	\$ -
10	D5066-5P	CARGO HOOK PLACARDS	\$ -	\$ -
10	D5066-7P	CARGO HOOK PLACARDS	\$ -	\$ -
10	D5066-9P	CARGO HOOK PLACARDS	\$ -	\$ -
				\$ -
				\$ -
				\$ -
	8207907570	SCHUDULE B NUMBER		

Total..... \$ 60,000.00
TOTAL FOB EUGENE, OR..... \$ 60,000.00

ALL PARTS LISTED ARE MANUFACTURED IN THE UNITED STATES OF AMERICA
TODAS LAS PARTES EN ESTA LISTA ESTAN HECHAS EN LOS ESTADOS UNIDOS

SP14-12-17

190 S. Danebo Avenue
Eugene, OR, USA 97402
dartaerospace.com

T 1 541 344-9953
F 1 541 344-3863

Sales
T 1 800 556-4166
F 1 613 632-4443
E sales@dartaero.com

Mission
Ready.



DART Aerospace
190 S Danebo Ave
Eugene, OR 97402
USA
Tel: 541.334.9953
Fax: 541.344.3863

Certificate of Conformance

Customer: DART Aerospace LTD. (Hawkesbury)

Purchase Order: 26589

Part Number	Description	Quantity	Batch
D4983-041 ✓ SP 14-12-17	Cargo Hook Assembly	1	01-4522-01
D4983-041	Cargo Hook Assembly	1	01-4522-02
D4983-041	Cargo Hook Assembly	1	01-4522-03
D4983-041	Cargo Hook Assembly	1	01-4522-04
D4983-041	Cargo Hook Assembly	1	01-4522-05
D4983-041	Cargo Hook Assembly	1	01-4522-06
D4983-041	Cargo Hook Assembly	1	01-4522-07
D4983-041	Cargo Hook Assembly	1	01-4522-08
D4983-041	Cargo Hook Assembly	1	01-4522-09
D4983-041	Cargo Hook Assembly	1	01-4522-10

DAS
9
9-89

Packing Slip Number: 17848

ALL MATERIALS, PARTS, COMPONENTS HAVE BEEN INSPECTED AND HAVE BEEN MANUFACTURED TO THE DRAWINGS LISTED ON

DART D4983-041 Rev. D

Date of MFG 12/15/2014

Approved By:

Jason Lindsay

Quality Assurance Manager

Date: 12/15/2014

190 S. Danebo Avenue
Eugene, OR, USA 97402
dartaerospace.com

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F 1 541 344-3863

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Mission
Ready.